



DOCKET NO.: H0498.70208US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

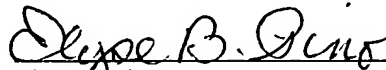
Applicant: Noo Li Jeon et al.  
Serial No: 10/690,475  
Confirmation. No.: 3848  
Filed: October 21, 2003  
For: METHOD AND APPARATUS FOR GRADIENT  
GENERATION

Examiner: Devore, Peter T.  
Art Unit: 3751

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 13<sup>th</sup> day of May, 2004.

  
Elyse B. Pino

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Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- ☒ Information Disclosure Statement
- ☒ PTO Form 1449 with cited references
- ☒ Copy of International Search Report dated April 17, 2002
- ☒ Copy of Written Opinion dated October 29, 2002
- ☒ Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 720-3500, Boston, Massachusetts.

Serial No.: 10/690,475  
Docket No.: H0498.70208US00  
Page 2 of 2

A check in the amount of \$180.00 is enclosed to cover the filing fee. If the fee is insufficient, the balance may be charged to Deposit Account 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,  
*Noo Li Jeon et al., Applicants*

By: 

Stephen R. Finch, Reg. No.: 42,534  
Timothy J. Oyer, Ph.D., Reg. No.: 36,628  
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Docket No. H0498.70208US00  
Date: 5/13/04  
xNDDx



ATTORNEY DOCKET NO.: H0498.70208US00

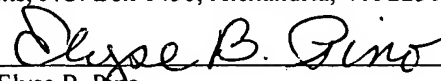
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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\_\_\_\_\_  
Elyse B. Pino

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of the first Office Action, but before the mailing date of either a final action under 37 C.F.R. §1.113 or a Notice of Allowance under 37 C.F.R. §1.311, or an action that otherwise closes prosecution in this application.

The fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) is enclosed.

05/18/2004 CCHAU1 00000070 10690475

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PART II: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

<u>Atty.</u> <u>Docket No.</u>	<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
*H0498.70174US00	10/041,718	1/8/02	Noo Li Jeon et al.
*H0498.70183US00	10/131,610	4/24/02	Rustem F. Ismagilov et al.
H0498.70190US00	10/783,983	2/20/04	Jessamine Ng et al.

The Applicant would like to bring to the Examiner's attention the enclosed search report and Written Opinion from corresponding International Application No. PCT/US01/42195.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,  
*Noo Li Jeon et al., Applicants*

By: 

Stephen R. Finch, Reg. No.: 42,534  
Timothy J. Oyer, Ph.D., Reg. No.: 36,628  
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FORM PTO-1449/A and B (Modified)				APPLICATION NO.: 09/954,710		ATTY. DOCKET NO.: H00498.70158.US			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				FILING DATE: September 18, 2001		CONFIRMATION NO.: 7615			
				APPLICANT: Noo Li Jeon et al.					
				GROUP ART UNIT: 3754		EXAMINER: Not Yet Assigned			
Sheet	1	of	2						

#### U.S. PATENT DOCUMENTS

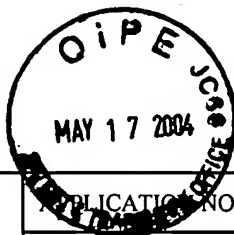
Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	*A1	3,417,770		Denison	12/1968
	*A2	4,074,687		Joyce, John E.	02/1978
	*A3	4,465,583		Lovegrove, Peter C.	09/1984
	*A4	4,966,792		Terai et al.	10/1990
	*A5	5,597,480		Zhou, Deming	01/1997
	*A6	5,728,457		Frechet et al.	03/1998
	*A7	6,296,020		McNeely et al.	10/2001
	A8	6,645,432		Janelle R. Anderson et al.	11/11/2003
	A9	6,653,089		Shuichi Takayama et al.	11/25/2003
	A10	6,686,184		Janelle R. Anderson et al.	02/03/2004
	A11	6,705,357	B2	Jeon et al.	03/16/2004

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
		WO	03/015890	A1	President and Fellows of Harvard College	02.27.2003	

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No.	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C1	DERTINGER, STEPHAN K.W. ET AL., "Generation Of Gradients Having Complex Shapes Using Microfluidic Networks," <i>Anal. Chem.</i> , 2001, 73(6), 1240-1246.	N
	*C2	JEON, NOO LI ET AL., "Neutrophil Chemotaxis In Linear And Complex Gradients Of Interleukin-8 Formed In A Microfabricated Device," Research Article, © 2002 Nature Publishing Group <a href="http://biotech.nature.com">http://biotech.nature.com</a> , published online 1 July 2002, <i>nature biotechnology</i> , Volume 20, July 2002, 826-830.	N
	*C3	JEON, NOO LI ET AL., "Generation Of Solution And Surface Gradients Using Microfluidic Systems," <i>Langmuir</i> 2000, Volume 16, No. 22, pp. 8311-8316.	N
	*C4	YANG, MENG SU ET AL., "Generation Of Concentration Gradient By Controlled Flow Distribution And Diffusive Mixing In A Microfluidic Chip," <i>Lab Chip</i> , 2002, 2, 158-163.	N
	C5	International Search Report from International Application No. PCT/US01/42195, mailed April 17, 2002	
	C6	Written Opinion from International Application No. PCT/US01/42195, mailed October 29, 2002	



<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 09/954,710		ATTY. DOCKET NO.: H00498.70158.US	
				FILING DATE: September 18, 2001		CONFIRMATION NO.: 7615	
				APPLICANT: Noo Li Jeon et al.			
				GROUP ART UNIT: 3754		EXAMINER: Not Yet Assigned	
Sheet	2	of	2				

EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No.09/954,710, filed September 18, 2001, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).